

COMMONWEALTH OF VIRGINIA
Department of Environmental Quality
South Central Regional Office

STATEMENT OF LEGAL AND FACTUAL BASIS

Lynchburg Waste Management Facility
2525 Concord Turnpike/Lynchburg, Virginia
Permit No. SCRO-31048

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, the City of Lynchburg, Waste Management Division has applied for a Title V Operating Permit for its waste management facility. The Department has reviewed the application and has prepared a Title V Operating Permit.

Engineer/Permit Contact: _____ Date: May 8, 2007

Air Permit Manager: _____ Date: May 8, 2007

Regional Director: _____ Date: May 8, 2007

FACILITY INFORMATION

Permittee

City of Lynchburg
Department of Public Works
Waste Management Division
2704 Concord Turnpike
Lynchburg, VA 24505

Facility

Lynchburg Waste Management
2525 Concord Turnpike
Lynchburg, VA 24505

County-Plant Identification Number: 51-680-00204

SOURCE DESCRIPTION

NAICS Code: 924110 – Municipal solid waste (MSW) landfill.

The City of Lynchburg is permitted to construct and operate a landfill capacity of 3.17 million Mg. The facility's first landfill unit accepted waste from 1970 to 1980. This unit is now closed. In 1993, another unit opened and was modified in 1996. Based on the increase in capacity, the facility is considered a major source by exceeding the NSPS Subpart WWW threshold of 2.5 million Mg. Potential emissions for all other pollutants (criteria and HAP) are less than major source thresholds. The non-methane organic carbon (NMOC) emission rate is submitted every five years to comply with Tier 2 reporting requirements. Reports indicate that the landfill has not exceeded the 50 Mg/yr threshold that would necessitate Subpart WWW control requirements.

A gas collection and control system (GCCS) currently operates onsite for odor control which is not a federally enforceable requirement. A collateral effect of the operation of the odor control system is destruction of a portion of the VOC and NMOC generated by the landfill.

The facility has been approved to utilize an alternative operating scenario which bypasses the use of the onsite flare and routes the collected gas to a nearby industrial facility to use as fuel. The scenario identifies the open flare as a backup control device for burning the landfill gas. The site's access road and landfill operations emit particulate matter in the form of fugitive dust.

The landfill is located in an attainment area for all pollutants. The facility's minor NSR Permit was issued on August 13, 2001.

COMPLIANCE STATUS

A full compliance evaluation of this facility, including a site visit, has been conducted. In addition, all reports and other data required by permit conditions or regulations, which are submitted to DEQ, are evaluated for compliance. Based on these compliance evaluations, the facility has not been found to be in violation of any state or federal applicable requirements at this time. Tier 2 testing was performed within the five year schedule.

CHANGES TO THE TITLE V PERMIT

The following changes are made to the Title V permit for this renewal:

- Change the name of the contact person (Section I)
- Deletion of notification requirements when landfill was modified in 1993 (Section III D.1)
- Update to general conditions to reflect current boilerplate language (Section VI)
- Inclusion of Alternate Operating Schedule (Attachment A)

EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Process Equipment – MSW Landfill							
Landfill	-	Municipal Solid Waste Landfill	3.17x 10 ⁶ Mg (4,585 m ³)	Callidus Technologies Flare and GCCS		VOC (see AOS)	8/13/2001

*The Size/Rated capacity is for information only, and is not an applicable requirement. AOS = alternate operating schedule.

EMISSIONS INVENTORY

The 2005 criteria pollutant emissions are summarized in the table below :

2005 Actual Criteria Pollutant Emission (ton/yr)						
Emission Unit	VOC	TNMOC	CO	PM ₁₀	NO ₂	HAP _{TOT}
MSW Landfill	15.48	13.22	11.78	0.20	0.47	8.93
Total	15.48	13.22	11.78	0.20	0.47	8.93

EMISSION UNIT APPLICABLE REQUIREMENTS

I. Process Equipment – MSW Landfill

Limitations

The facility has a design capacity limitation on the landfill of 3,170,000 megagrams and as such is subject to the requirements of NSPS Subpart WWW.

Conditions III.A.1 - III.A.3 are the state Standards and Conditions for Granting Permits affecting design capacity changes, gas collection and control system requirement, and control of fugitive emissions per Conditions 1-3 of the NSR Permit dated August 13, 2001.

Condition III.A.4 incorporates the requirements of NSPS Subpart WWW, "Standards of Performance for Municipal Solid Waste Landfills" by reference.

Monitoring and Recordkeeping

During the time of this renewal, non-methane organic compound (NMOC) emissions from the landfill remain below the 50 Mg/yr threshold that triggers installation of a NSPS Subpart WWW landfill gas collection and control system (GCCS). If the five year estimated NMOC emission rates equals or exceeds 50 Mg, the facility is required to perform Tier 3 testing to determine methane generation constant and resume annual NMOC reporting with retesting every five years per NSPS Subpart WWW.

The facility is required to maintain records of all emission data and operating parameters necessary to demonstrate compliance with the Title V permit. For the landfill operations, these records include but are not limited to: records of current maximum landfill design capacity; current amount of refuse in place and annual (calendar year) refuse accumulation rates; description, location amount and placement date of all nondegradable refuse including asbestos and demolition debris in landfill areas which are excluded from landfill gas collection and control; and the installation date and location of all wells and flares.

Condition III.B.1. a through c are the continuous recordkeeping requirements of all emission data and operating parameters per Condition 6 of the NSR permit dated August 13, 2001.

Condition III.B.2. a. and b are the Standards and Conditions for Granting Permits for continuous monitoring of the flare stack in the event the collected gas is burned on site instead of its alternative used as fuel.

Condition III.B.3 is the 40 CFR 63 Subpart A NESHAP "relevant source category" recordkeeping requirements to show the landfill is not subject to the standard or other requirements under 40 CFR 63 Subpart A.

Compliance Assurance Monitoring (CAM)

Not applicable. According to 40 CFR 64, compliance assurance monitoring (CAM) applies to a pollutant-specific emissions unit(s) (PSEU) at a major source that is required to obtain a part 70 or 71 and that meet the criteria for having a PSEU. At this time, the landfill does not employ a control device to meet an emission limitation on any Title V regulated pollutant.

Testing

The permit does not require source tests. A table of test methods has been included in the permit if testing

is performed. The Department and EPA have authority to require testing not included in the permit if necessary to determine compliance with an emission limit or standard.

Conditions III.C.1 and 2 are the Standards and Condition for Granting Permits for performance testing.

Condition III.C.3 is the site specific NMOC emission rate testing requirement per Condition 13b of the NSR permit dated August 13, 2001 and 40 CFR 60 Subpart WWW.

Reporting

Currently, NMOC emissions from the landfill remain below 50 Mg/yr and a landfill GCCS is not required. The facility elected to submit a NMOC emission rate estimate to DEQ every five years (Tier 2 testing) in lieu of an annual report.

Condition III.D.1. a through c are the reporting requirements upon modifying the MSW Landfill per Condition 7 of the NSR permit dated August 13, 2001.

Condition III.D.2 through 10 are the NMOC emission rate, and gas collection and control system, and landfill closure reporting requirements per Conditions 10 through 18 of the NSR permit dated August 13, 2001.

Condition III.D.11 is the operating procedures and maintenance schedule reporting requirements per Condition 20 of the NSR permit dated August 13, 2001.

Streamlined Requirements

None

GENERAL CONDITIONS

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110 that apply to all Federal-operating permitted sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions.

Comments on General Conditions

B. Permit Expiration

This condition refers to the Board taking action on a permit application. The Board is the State Air Pollution Control Board. The authority to take action on permit application(s) has been delegated to the Regions as allowed by §2.1-20.01:2 and §10.1-1185 of the *Code of Virginia*, and the "Department of Environmental Quality Agency Policy Statement No. 2-2003".

F. Failure/Malfunction Reporting

Section 9 VAC 5-20-180 requires malfunction and excess emission reporting within four hours of discovery. Section 9 VAC 5-80-250 of the Title V regulations also requires malfunction reporting; however, reporting is required within two days. Section 9 VAC 5-20-180 is from the general regulations. All affected facilities are subject to section 9 VAC 5-20-180 including Title V facilities. Section 9 VAC 5-80-250 is from the Title V regulations. Title V facilities are subject to both sections. A facility may make a single report that meets the requirements of 9 VAC 5-20-180 and 9 VAC 5-80-250. The report must be made within four daytime business hours of discovery of the malfunction.

U. Malfunction as an Affirmative Defense

The regulations contain two reporting requirements for malfunctions that coincide. The reporting requirements are listed in sections 9 VAC 5-80-250 and 9 VAC 5-20-180. The malfunction requirements are listed in General Condition U and General Condition F. For further explanation see the comments on general condition F.

Y. Asbestos Requirements

The Virginia Department of Labor and Industry under Section 40.1-51.20 of the Code of Virginia also holds authority to enforce 40 CFR 61 Subpart M, National Emission Standards for Asbestos.

STATE ONLY APPLICABLE REQUIREMENTS

None

FUTURE APPLICABLE REQUIREMENTS

A review of the National Emission Standard for Hazardous Air Pollutants: Municipal Solid Waste (40 CFR 63 Subpart AAAA) reveals the landfill is not a major source per 40 CFR 63.2; nor is collocated with a major source. Nevertheless, should the uncontrolled NMOC emission rate ever equal or exceed 50 Mg/yr, the facility may be subject to this standard.

40 CFR 60.752 (b)(1)(ii)(A), Subpart WWW requirement requiring the installation of a gas collection and control system if uncontrolled NMOC emissions are equal to or exceed 50 Mg/yr.

On September 8, 2006, EPA proposed supplemental amendments to the Landfill NSPS, Emission Guidelines, Federal Plan, and NESHAP. The amendments as they affect Lynchburg Waste Management Facility are as follows:

EPA proposed to amend 40 CFR 60.751 of Subpart WWW to add a landfill-specific definition in order to identify owners/operators of various equipment used to achieve compliance with landfill NSPS responsibilities. Lynchburg Waste Management Facility is owned and operated solely by the city of Lynchburg. At this time, estimated NMOC concentrations have been reported less than 50 Mg/yr so the facility is not required to install a gas collection and control system (GCCS). Should estimated NMOC emission reach 50 MG/yr, the facility would be required to determine when controls are required; ensure the necessary equipment is properly installed, and identify the responsible party operating and maintaining

compliance with the landfill's collection, control and/or treatment process.

EPA proposed to amend 40 CFR 60.755 (e) of Subpart WWW regarding time allowed for startup, shutdown, malfunction and maintenance events with gas collection and control systems. Lynchburg's Waste Management Facility is not required to install a GCCS in accordance with 60.752 because the landfill's estimated NMOC concentration is currently less than 50 Mg/yr.

INAPPLICABLE REQUIREMENTS

Inapplicable requirements identified by the applicant concerning its flare and gas collection and control system (GCCS):

40 CFR 64, Compliance Assurance Monitoring (CAM) – Although the landfill emits VOCs, the flare is not being used to meet a VOC emissions limitation. An alternative operating schedule is used to route the collected gas to a nearby industrial facility for fuel.

40 CFR 60.752 (b)(2)(ii), Installation requirement for GCCS – Uncontrolled NMOC emissions are less than 50 Mg/yr.

40 CFR 60.753, Operation standards for collection and control systems – Not applicable since GCCS is currently installed for odor control.

40 CFR 60.756, Monitoring of (gas collection) operations – Not applicable since GCCS is currently installed for odor compliance.

40 CFR 63, Subpart AAAAA (NESHAP for MSW Landfill) – The facility is not a major source or collocated with a major source (as defined in 40 CFR 63.2); uncontrolled NMOC emissions are not equal to or greater than 50 Mg/yr; and, the source does not operate a "bioreactor" as defined in 40 CFR 63.1990.

COMPLIANCE PLAN

None required.

INSIGNIFICANT EMISSION UNITS

The insignificant emission units are presumed to be in compliance with all requirements of the Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

Insignificant emission units include the following:

Emission Unit No.	Emission Unit Description	Citation ¹ (9 VAC_)	Pollutant Emitted (5-80-720 B.)	Rated Capacity (5-80-720 C.)
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Emission Unit No.	Emission Unit Description	Citation ¹ (9 VAC_)	Pollutant Emitted (5-80-720 B.)	Rated Capacity (5-80-720 C.)
None Identified				

¹The citation criteria for insignificant activities are as follows:

9 VAC 5-80-720 A - Listed Insignificant Activity, Not Included in Permit Application

9 VAC 5-80-720 B - Insignificant due to emission levels

9 VAC 5-80-720 C - Insignificant due to size or production rate

CONFIDENTIAL INFORMATION

The permittee did not submit a request for confidentiality. All portions of the Title V application are suitable for public review.

PUBLIC PARTICIPATION

The proposed permit will be placed on public notice in *The News & Advance* from February 17, 2007 to March 19, 2007.